

## **Characteristic of circulating immune complexes in the blood of children with asthma**

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### **Abstract**

Circulating immune complexes (CIC), which are heterogeneous in size and composition population of antibodies and antigens, are critical mediators of the immune system. Precipitation of the CIC on the vascular wall and basal cell membranes causes a variety of biological effects: activation of the complement system in accordance with the classical pathway, activation of macrophages initiating the development of a local inflammatory process involving mast cells and neutrophils. In the present study, we have examined the content and physical characteristics of the CIC in the serum of children with atopic asthma and healthy individuals. We have found that the concentration of CIC in patients is 2-fold higher than in control group. The presence of the most pathogenic medium-sized complexes was determined in 9 % of healthy children and 85.6 % of children with asthma.

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### **Keywords**

Asthma, Circulating immune complexes